

Transcatheter Aortic Valve Implant (TAVI)

Sussex Cardiac Centre

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Advice pre and post transcatheter aortic valve implant

This booklet is intended to give you a clearer understanding of what having a Transcatheter Aortic Valve Implant (TAVI) will involve for both you and your family.

Please remember this is a general guide of what is likely to happen and there will be differences from person to person.

Any of the nurses and doctors who are looking after you will be happy to answer your questions and deal with any matters that may be worrying you.

Valvular heart disease

Your heart is a muscle which pumps blood to your lungs and around the rest of your body. There are four valves in your heart.

Normally, these valves open to let blood flow through or out of your heart, and then shut to keep it from flowing backwards.

If your valve is diseased or damaged this can affect the flow of blood to your heart in two ways.

- 1 If the valve does not open fully, it will obstruct the flow of blood. This is called **valve stenosis**.
- 2 If the valve does not close properly, it will allow blood to leak backwards, in the wrong direction. This is called **valve incompetence** or **regurgitation**.

What are the symptoms of valvular heart disease?

The symptoms of valvular disease vary depending on which valve is affected, they may include:

- tiredness or breathlessness when exercising
- palpitations or feeling like your heart is racing
- chest pains (angina) because there is not enough blood flowing through the coronary arteries, which supply the heart muscle with blood
- spells of dizziness and fainting, this can happen if the obstruction is severe

The back pressure (the effect of blood flowing backwards) can also cause shortness of breath and swelling of the ankles and legs.

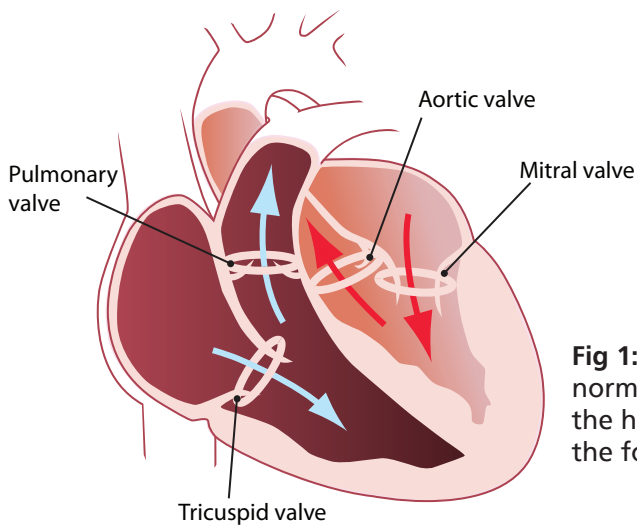


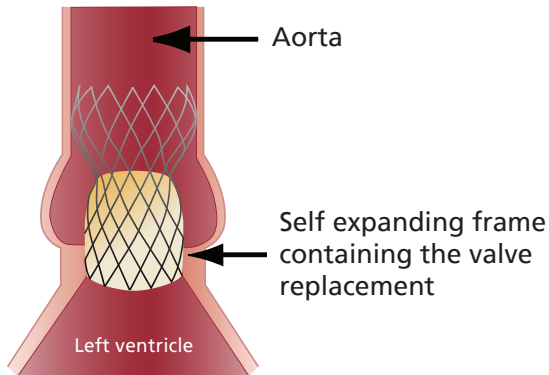
Fig 1: This picture shows the normal flow of blood through the heart, and the location of the four heart valves

Transcatheter Aortic Valve Implant (TAVI) procedure

For some people one way of treating their particular heart problem is to insert a new aortic valve percutaneously or through an artery via the skin. This means that we may not have to perform open heart surgery and the procedure can be performed in a similar approach as the angiogram which you have already had.

Before the start of the procedure, to help you to relax, an anaesthetist will give you some sedation; then local anaesthetic will be used to numb the groin or wrist and a small cut is made to insert a tube into the artery. The balloon catheter (a soft catheter with an inflatable balloon at the tip) is inserted into the top of your leg (groin) and fed through an artery to the heart. Doctors are guided by x-ray screening to direct the catheter until it enters the aorta.

Once the balloon catheter is in the correct position, the balloon is inflated to make way for the new valve. The replacement valve is a tissue valve, mounted on a self expanding frame, which is placed in the aorta to improve blood flow. Once the new valve is in the correct position, the catheter is removed.



In 20% of patients, the doctor may decide to insert the catheter through an artery near the collar bone. If this is the best treatment for you, we will tell you this and talk to you about what it will involve. We will give you a general anaesthetic and you will be put to sleep. It is likely that you will be transferred to a Cardiac High Dependency Unit (CHDU), following the procedure, to recover from the anaesthetic.

If you do not already have a pacemaker, we may insert a temporary pacemaker before inserting the catheter through your artery.

A pacemaker is a device that uses electrical impulses to regulate the heart rhythm. The doctors can use the temporary pacemaker to increase your heart rate, which is important during valve replacement to ensure correct positioning.

The temporary pacemaker is a wire which can be inserted through either your neck or leg. The doctors will explain this procedure to you during your clinic appointment so that when you come into hospital, to have the operation, you understand what it will involve.

20% of all people who undergo the TAVI procedure will require a pacemaker permanently. This is usually inserted one or two days following the TAVI procedure, whilst you are still in hospital. We will discuss this with you during your clinic

appointment before your hospital admission. The doctors and nurses looking after you can answer any questions or concerns you may have regarding pacemakers.

Are there any risks?

The TAVI procedure has a success rate of more than 95%, however, as with any heart procedure there are risks attached and they vary from person to person. We will explain to you when you come for your appointment at the clinic and again when you come to sign the consent form.

If you have any questions or concerns, ask your doctor or nurse.

After the procedure

The procedure lasts approximately one and a half hours and when it is finished you will be taken back to the Cardiac Care Unit (CCU). If you require a higher level of care, then we will transfer you to our Cardiac High Dependency Unit (CHDU). We will close the puncture site in your groin with a device that seals the artery. The nurse looking after you will regularly inspect your groin, check your blood pressure and check the pulses in your feet.

We will observe your heart rhythm on a cardiac monitor for four to six hours. You will need to lie flat for part of this time.

During the procedure, we may have to access arteries in both groins. This may mean you have to lie flat for longer. If there are no problems with the insertion site, such as bleeding or swelling, you will be able to sit out of bed the following morning.

There is limited space in the ward, so we suggest you do not bring too many things with you into hospital.

While you are in the Cardiac Care Unit (CCU) and Cardiac High Dependency Unit (CHDU) it may not always be possible to care for you with other patients, who are the same sex as you, because we will be using specialised equipment as part of your care. However to make sure of your privacy and sense of dignity we provide substantial screening around your bed, to preserve your privacy and dignity.

Brighton and Sussex University Hospitals Daily Visiting Hours:
3pm – 5pm 7pm – 8.30pm

To enable nurses and doctors to attend to your needs during visiting time, we ask that visitors are limited to two people at the bedside, at any one time.

Activity

Everyone has a different response to this procedure so these suggestions are guidelines only. If you have any doubts talk to the doctor or nurse about what you can do.

We advise you not to do anything strenuous, after returning home. So avoid lifting heavy objects (e.g shopping, suitcases) excessive pulling and pushing (e.g cutting the grass, digging the garden, shovelling and vacuum cleaning).

Give yourself a week or two to get your strength back before returning to your everyday activities. A good starting point is to take regular walks that you increase on a daily basis. You do not have to avoid climbing stairs or walking up hills just take them slowly and steadily at first. After this period you should be back doing the things you used to do and you may even find that you can do more if dizziness or breathlessness was holding you back before.

Driving

It is advisable not to drive for one week after this procedure. If you have an LGV or PCV license you will be required to undergo an exercise test before getting your license back. This will need to be discussed with your employer, GP and Consultant. The same will apply for train drivers and pilots.

Flying

It is safe to fly to any destination 10 days after your treatment, provided you have not had any complications and you are the passenger and not the pilot!

Returning to work

This will depend on many factors such as the overall state of your health and the type of work that you do. If you have been working up until the time of your procedure you should be able to return to work within a week or so. You may like to discuss this in more detail with your consultant or GP.

Going home

If there have not been any problems, you should be able to go home two to four days after the procedure.

If you have any problems organising your own transport home, then do talk to the ward staff as soon as you can. We suggest that you organise for someone to go with you to the transport as the staff on your ward will not be free to go with you.

Wound care

It is normal for your groin to feel tender for a few days after the procedure. A bruise may develop as far down as your knee. If you develop a hard tender lump under the skin around the cut/wound, get in touch with your GP. This may be the result of a collection of blood, or haematoma, under the skin. We also advise you to avoid hot baths for 48 hours as this may encourage bleeding.

The artery sealing device leaves a stitch under the skin and your wound will be secured by some steri strips (paper stitches) and covered with a clear dressing. You can peel off the clear dressing 24 hours after going home and the steri strips should be left until they dry and they peel off on their own.

In the highly unlikely event of your wound starting to bleed, lie down flat and get a family member or friend to apply pressure to your groin. If the bleeding does not stop within ten minutes, call an ambulance immediately.

Tablets

Following Transcatheter Aortic Valve Implant (TAVI) you will be given two medicines, Aspirin and Clopidogrel (PLAVIX), which you are required to take every day for six months. After six months, you will only need to take a daily dose of Aspirin.

Both of these medicines will prevent clots from forming inside the newly inserted valve.

We will give you one month's supply of these tablets and send a letter to your GP, explaining the treatment you have had while in our care. This letter will also list the medicine we have prescribed for you.

Sex

You and your partner may be worried that sex will put the heart under a great deal of strain and cause some damage. Your fears are understandable but in fact your heart will not be damaged.

Generally, once you are managing everyday activities you can safely resume sex when you and your partner feel ready. Research has shown that the physical effort during sexual intercourse from start to finish is no more than climbing 20 stairs.

Cardiac rehabilitation

In Brighton you are invited to attend a rehabilitation programme approximately two weeks after discharge. It is held twice weekly for seven weeks. The programme includes graduated exercise and general health discussions lasting for two hours. Your level of fitness is taken into consideration.

If you live outside the Brighton area you will be referred to the Cardiac Rehabilitation Nurse at your local hospital. They may then contact you regarding their service.

People who have been on the rehabilitation programme say that the main benefits are that they feel more confident about coping with everyday life. They also find that the exercise programme helps them increase their level of fitness.

Hospital follow up

All patients will come for follow up appointments at the hospital, which will include echocardiograms, or ultra sound scanning of the heart. This will monitor the efficiency of the new heart valve. The appointments will take place after one month, then one year after the procedure. An annual follow up appointment will be necessary thereafter.

Useful telephone numbers/websites

Sussex Cardiac Centre patient website

www.sussex-cardiac-centre.co.uk

Cardiac Rehabilitation Nurses and Advice Line

RSCH – Telephone: 01273 696955 Ext: 4009

The Sussex Heart Charity – local cardiac charity

RSCH – Telephone: 01273 523026

www.sussexheartcharity.org

Heart guard – local first aid and resuscitation courses

RSCH – Telephone: 01273 523026

Take Heart – community exercise and support group

Telephone: 01273 278213

Telephone: 01273 584530

The British Cardiac Patients Association (BCPA)

Martletts – Telephone: 01903 763902

Community support group for cardiac patients and their carers

National Helpline Telephone: 01223 846845

Health Promotion Unit Audrey Emerton Building

Health information literature Telephone: 01273 703100

National Institute of Clinical Excellence (NICE)

www.nice.org.uk

NHS Direct and NHS Choices - health advice

Telephone: 0845 4647

NHS Smoking Helpline

Telephone: 0800 1690169

If you do not understand this leaflet, we can arrange for an interpreter.

إذا كنت لا تستطيع فهم محتويات هذه النشرة فيمكننا عمل الترتيبات لتوفير مترجم شفوي لك.

এই প্রচারপুস্তিকাকাটি যদি আপনি বুঝতে না পারেন, তবে আপনার জন্য আমরা একজন অনুবাদকের ব্যবস্থা করে দিতে পারি

如你不明白本單張的內容，我們可安排口譯員服務。

如你不明白本传单的内容，我们可安排口译员服务。

اگر مندرجات این جزوه را نمی‌فهمید، ما می‌توانیم مترجم در اختیارتان بگذاریم.

Jeśli masz trudności w zrozumieniu tej ulotki, możemy zorganizować tłumacza.